

USE WITH KIT 90007MM ENGLISH ONLY FORM01124

For use on Conversion Kit on Rear Air Leveling System on following:

1997-2005 Buick Electra, LeSabre and ParkAvenue

2006-2010 Buick Lucerne

1995-1999 Buick Riviera

2000-2005 Cadillac Deville

2006-2011 Cadillac DTS

1998-2004 Cadillac Seville / STS

1995-2003 Oldsmobile Aurora

2000-2005 Pontiac Bonneville

-- Read this instruction sheet and any instructions printed on the parts package carefully prior to removing components from the vehicle.

-- Part number on the shock or spring may differ from the part number on the carton. Contents are correct for the vehicle.

W A R N I N G !

- Before servicing these vehicles equipped with original air leveling shocks, turn off the "air suspension switch" or "remove the power source (fuse) to the air pump.
- Do not attempt to remove the air shock from the suspension if it still contains air. Clear the air from the spring before servicing.
- If the shocks supplied are nitrogen gas pressurized, do not heat or open.
- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under a vehicle.

PRIOR TO INSTALLATION:

This vehicle is equipped from the original manufacture with air shock to provide self leveling feature.

1. Provided that the pump is still operational, it is HIGHLY RECOMMENDED that you replace the air shock absorbers with new components only. The part number is **MA822**, which is a pair of shock absorbers having the correct fitting for a direct fit to this application
2. If the pump has failed and the replacement air shock absorbers may still be used. The set of manual fill air line can be installed, using part number **AK29**. These air lines are also a direct fit to the air shock absorbers. The air lines can be routed to the trunk area near the trunk latch and attached. Add air pressure to make the vehicle visually set level or slightly above. Air pressure should be approximately 35 to 40 psig.
3. As a last item if step 1 and 2 are not utilized, this kit **90007** replaces the rear air shocks on the applications. It will disable the air leveling feature system and replace it with conventional shock with assist coil springs. This kit is designed to provide a complete and thorough conversion of the suspension. The pump will need to be disabled (unplugged) to not allow air to be generated from on board. There may be some applications that emit warnings signals to the message centers. These may or may not be able to be disconnected.

If there is electronic adjustable on the vehicle, the message center MAY NOT be able to turn off dependent upon the alteration of all or partial vehicle modification. The solenoid on the original should remain on the vehicle and plugged in. The item should be inserted into a plastic bag and tucked/tie wired to body. This will provide the resistance within the electrical system to eliminate the fault. The message center can be deactivated by pushing the RESET button on the dash panel (check service manual for location) each time the vehicle is started.

Components in this kit are designed to replace worn or non-operational original equipment parts on the vehicle, providing a conversion from air leveling shock to a conventional shock with assist coil spring.

It is recommended that you measure the vehicle for height to recognize the change from before to after installation of any of the systems.

Measurement from floor to wheel lip opening

| NORMAL MEASUREMENTS | Left Rear | Right Rear |
|---------------------|--------------------------------|------------|
| | 25-1/4" to 25-3/4" either side | |
| BEFORE Installation | _____ | _____ |
| AFTER Installation | _____ | _____ |

REFERENCE: If needed, you can refer to the original equipment service manual for servicing the air leveling system using a scan tool. Several codes will detect air system is still functional or indicate items in question. The scan tool can also reset any error codes causing message lights or message center to be illuminated. This Instruction Sheet is a guideline and reference tool for the installation. Due to minor installation difficulty, it is necessary to follow the steps and methods detailed to ensure quality completion.

REMOVAL PROCEDURE FOR SHOCK ABSORBER:

1. Prior to lifting the vehicle and removing its wheels, turn off the air suspension control switch or remove the power source to pump (remove fuse). The pump electrical connection can be disconnect at the pump which is located behind the right rear fender well. Access panel will need to be removed to gain access.
2. Raise vehicle at proper lift points and rear wheels. (Consult GM Owners Manual if necessary) and make sure the vehicle is properly supported. Make sure to support the axle and be able to lower each side tire after the upper shock mounting disconnected.
3. Locate the shock upper mount behind the trunk side trim panels. Remove the two nuts that hold the upper mounting to the body panel. Do not remove the center nut which attaches to shock stem to mount. Discard nuts, as new supplied.
3. Lower the supported axle to extend the shock. Disconnect the air line by spreading the clip, then pull the line free from the shock.
4. Remove the two bolts from the lower mounting. The threaded clips on the cross pins are not needed for reinstallation. New nut and bolt is provided for reattachment. Slightly compress the shock and remove.
- 5a. If installing air shock, the air fitting will be reinstalled
- 5b. If installing the manual air lines or the conversion kit, the original lines should be placed in a poly bag and sealed with electrical tape to keep moisture out and tucked under the body out of way from the shock area or tire.

INSTALLATION OF SHOCK ABSORBER WITH COIL SPRING:

6. The shock absorbers provided for this conversion have a coil spring to maintain the similar vehicle height. Once installed, the vehicle may be up to 1/2" higher than original dependent upon the model of the vehicle, some settling will occur after time.
7. (FIG 1) Install the new upper mounting on to the stem mounting attachment. The stack order is larger dished retainer, mount (with the two studs up), smaller dished retainer then nut. Tighten to 24-28 ft-lbs (32-38 N-m).



Figure 1

8. Install shock absorber into vehicle, aligning the upper mounting into the two holes. This mount does have an orientation. Attach the two upper mounting nuts inside the trunk, these will be tightened later.

9. (FIG 2) Align the lower mounting within the control arm. Line up the cross pin holes are over the holes in control arm, then install the new provided bolts and nuts. The original clips do not need to be reused. The original bolts also were excessive long, only for production line installation requirements. Tighten to 15-18 ft-lbs (20-24 N-m)

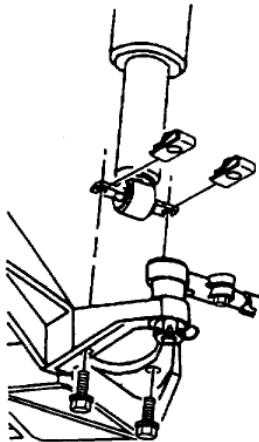


Figure 2

10. Reinstall the tire and lower the vehicle removing all supports. Tighten the lug to 70 ft-lbs (94 N-m).

11. After the vehicle is at static height (weight on ground), tighten the two upper mounting nuts to 15-18 ft-lbs (20-24 N-m)

DISABLING THE AIR LEVELING CONTROLS (ELECTRONIC CONTROL UNIT)

This part of the procedure relates to disabling the pump leveling portion of the system and the warning indicators for the Automatic Leveling Control.

Failure to follow this part of the instruction will only lead to the pump to continue to operate and visual and/or audible warning signals. The signals will not harm the operation of the vehicle after the conversion, but may be an annoyance.

Disable of Pump

- a) The pump should be electrically disconnected. Removal of only the fuse to this circuit is possible, but some vehicles have other items contained on this circuit.
- b) Disconnection should be done at the pump, located behind the right rear wheel underbody. Remove the splash shield to gain access.
- c) (FIG 3) Disconnect the two wire plug to eliminate electrical input. The wires connectors should be taped to protect from contamination, if desired to reuse. This is provided the pump is still operational.

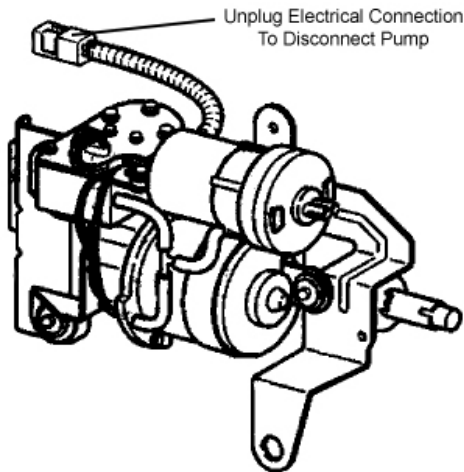


Figure 3

- d) Reinstall any splash shields removed.

Disable of Message or Warning Signal

1. For a temporary message center disable method:

- a) Some vehicles have a RESET button on the dash to reset the message center. This will only eliminate the message during the individual start cycle. It may have to be reset each time the vehicle is started or key is turned to on position.

2. For a permanent message center disable method:

- a) This will require the control module to be disabled, using a Diagnostic System Scan tool to interface with the Rear Integrated Module (RIM). Connect to the class 2 serial data circuit.
- b) Make sure the ignition is ON, but with the engine OFF.
- c) Enter the appropriate vehicle information into the system to develop message output. Information pertaining to fault codes should be present once the suspension information has been found. Dependent upon the scan tool, different techniques to gain this information will be required. Follow the information guidelines for the particular device.
- d) If you receive a diagnostic message starting with a "U" then this particular instrument is not communicating with the system.
- e) Once the error codes have been achieved, these codes can be erased which should eliminate the message values.